REMARKS

Applicants first wish to address the provisional rejection of claims 21-40 on the ground of nonstatutory obviousness-type double patenting over claims 14-26 of co-pending Application No. 10/542,296 in view of the patent to Allen (U.S. Pat. No. 6,388,802). In the After Final Response dated January 28, 2008, Applicants amended the claims and noted that the '296 application did not disclose a link control laser to inject laser radiation into the loop, and that Allen discloses removing the radiation from the loop. Applicants requested that, in light of the amendments and remarks, the Examiner withdraw the provisional rejections. However, the Advisory Action dated February 12, 2008 does not address that request.

Accordingly, Applicants incorporate those remarks and amendments from the After Final Response in their entirety in this response, and respectfully request that the Examiner withdraw the provisional rejection of claims 21-40 on the ground of non-statutory obviousness-type double patenting.

In the Advisory Action, the Examiner maintained the final rejections to claims 21 and 38 as being anticipated by Lee (U.S. Pat. No. 6,735,391). Although Applicants disagree with the rejections, Applicants have amended these claims, without adding new matter, to clarify that Lee does not anticipate these claims. As amended, claims 21 and 38 and their respective dependent claims are patentable over the cited art.

Claim 21 is directed to a Wavelength Division Multiplexing (WDM) optical network comprising a plurality of nodes connected in a loop. As amended, claim 21 recites a link control laser to inject laser radiation into the loop at a point where it is desired that a lasing peak be generated and allowed to circulate around the loop. The laser radiation injected into the loop is centered around a λ_{LINK} wavelength. Injecting the laser radiation as claimed controls lasing generated by (ASE) recirculation (*see e.g., spec.*, p. 11, ll. 3-8), and thereby avoids the damage to network components (e.g., amplifiers, etc.) from the spikes in optical power that occur whenever there is a break in the loop.

Lee, which discloses an automatic recovery method for a looped WDM network, does not disclose a link control laser to inject laser radiation into the loop to control the lasing generated by the ASE recirculation as claimed. Lee monitors the optical power in a pair of parallel optical links that connect a plurality of nodes in a closed loop. Whenever Lee detects "a significant gain" in optical power, Lee determines that a link failure has occurred and switches transmission paths. *Lee*, col. 5, ll. 30-45.

Lee discloses that, when a failure occurs, the resultant "significant gain" in optical power is high enough such that the ASE noise is used to induce lasing. In the Advisory Action, the Examiner cites claim 14 and contends that this creates a ring laser that equates to the claimed link control laser. Respectfully, however, the Examiner misstates Lee. There is no mention in claim 14 (or anywhere in Lee for that matter) of a link control laser. The claim the Examiner appears to rely upon to show otherwise merely states that the ASE emission peak of the amplifiers in the ring is used to produce a lasing peak.

However, even assuming that Lee does disclose a link control laser (which it does not), Lee does not disclose the *claimed* link control laser. Specifically, the lasing generated in Lee is *uncontrolled*. Lee never mentions a link control laser that injects laser radiation centered around a λ_{LINK} wavelength into a loop at a point of the loop where it is desired that a lasing peak be generated and allowed to circulate in the loop to control lasing generated by the ASE recirculation, as claimed. In fact, it appears that Lee would not desire such control.

According to Lee, it is important to set the gain of the optical amplifiers high enough so that upon a link failure, the gain in the closed loop will exceed a specified level (i.e., power spikes). Thus, power spikes are needed and used in Lee. However, such spikes often damage network components, which is exactly the type of damage that the claimed invention avoids. Particularly, the claimed invention injects laser radiation into the loop centered around a specified wavelength to control the lasing. Such control allows the gain in the closed loop to be kept low enough such that sudden power spikes do not damage the network components.

Lee does not disclose a link control laser configured to inject laser radiation centered around a λ_{LINK} wavelength into the loop at a point of the loop where it is desired that a lasing peak be generated and allowed to circulate in the loop to control lasing generated by the ASE recirculation, as amended claim 1 now recites. Therefore, Lee cannot anticipate claim 1, or any of its dependent claims.

The Examiner also maintained the final rejection of claim 38 as being anticipated by Lee for reasons similar to those stated for claim 21. However, claim 38 has also been amended, without adding new matter, to include language similar to that of claim 21. For reasons similar to those stated above, Lee also fails to anticipate amended claim 38 or any of its dependent claims.

In light of the foregoing amendments and remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow all pending claims.

Respectfully submitted,

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